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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/579,692

05/16/2006

Helmut Lenz

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EXAMINER

FETZNER, TIFFANY A

ART UNIT

PAPER NUMBER

2859

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/579,692	Applicant(s) LENZ, HELMUT	
	Examiner Tiffany A. Fetzner	Art Unit 2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 5/16/2006 & 8/04/2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 5/16/2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>5/16/2006 & 8/4/2006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on **5/16/2006** and **8/4/2006** are in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner has considered the information disclosure statements of 5/16/2006 and 8/4/2006. The initialed and dated information disclosure statements of **5/16/2006** and **8/4/2006** are attached to this office action.

Drawings

3. The drawings are objected to because the "blank boxes" in figures 1, 2, and 5 need to be labeled. by appropriate component num

A) In **Figures 1, and 2** component **1** should be labeled "**regulation system**" as taught in paragraphs **[0023]** and **[0028]** of the substitute specification.

B) In **Figures 1, and 2** component **4** should be labeled "**control device**" as taught in paragraphs **[0023]** and **[0028]** of the substitute specification.

C) In **Figure 5**, component **11** should be labeled "**compensator output line**" as taught in paragraph **[0039]** of the substitute specification.

D) In **Figure 5**, component **20** should be labeled "**I signal amplifier**" as taught in paragraph **[0040]** of the substitute specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each

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drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

5. **Original Claims 1-12 were canceled as per the May 16th 2006 amendment.** Therefore **claims 11 and 12** are misnumbered because once a claim is canceled, it is **canceled**. Because the **first available claim number is 13**. **Misnumbered New claims 11-24** have been renumbered as **claims 13-26**. **Claims 13-20** are objected to because they each depend from a claim, which was canceled by applicant's **May 16th 2006 amendment**. Appropriate correction is required.

7. **Claim 13** is objected to because applicant has used the phrase "adapted to" without providing what the adaptation is that has been performed on the compensation device. When no adaptation has been performed, the correct terminology for this type of situation is "configured to" because it is an unmodified component, which is being referenced with respect to its purpose. The examiner suggests replacing the word "adapted" with "configured".

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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9. **Renumbered Claims 13-26** are rejected under **35 U.S.C. 102(b)** as being anticipated by **Lenz US patent 6,448,775 B1** issued **September 10th 2002**, filed December 9th 1999.

10. With respect to gradient amplifier (**New re-numbered claim 13**), corresponding MR gradient amplifier system (**New re-numbered claim 23**), and corresponding MR gradient amplifier method (**New re-numbered claim 24**), **Lenz** teaches and shows "A gradient amplifier for a magnetic resonance system and a corresponding method of utilization" [See the abstract, col. 1 lines 7-17 and figures 1 through 3], "the amplifier comprising: an output stage adapted to connect to an electrical energy source;" [See figure 1 with respect to output stage component 6] "a compensation device" [See the combination of control loop components 1 and 7, which also comprises the detailed components found within component 1 and shown in detail in figure 2] that is "**adapted configured** to connect to the electrical energy source" of figures 1 and 2] "and to measure a first parameter value" (i.e. an actual value of an output supply voltage) "and to output at least one compensation signal" [See figures 1 through 3f] "and a control device" (i.e. See figure 1 modulator component 4, and figure 2 component 15 in combination col. 2 lines 21-32) "wherein the control device accepts the at least one compensation signal as an input, and controls the output stage by a control signal output." [See figures 1 and 2, col. 1 line 38 through col. 4 line 19.]

11. With respect to (**New re-numbered claim 14**) and corresponding MR gradient amplifier method (**New re-numbered claim 25**), **Lenz** teaches and shows "a regulation system" [See figure 1 component 4, and adder component 15 in combination with figure 2 components 10 through 22, 5; col. 2 lines 21-32 "connected on an input side to the output stage" [See figures 1 and 2 in combination with one another] "and on an output side "to the control device" (i.e. with respect to adder component 15 and modulator component 4) "and configured to produce a regulator signal (RS);" (i.e. resulting output signal 5) "wherein the regulator signal (RS)" (i.e. resulting output signal 5) "is a function of a second parameter value" (i.e. an amplifier output voltage or a load current". [See figures 1, 2, and 3 in combination with one another, col. 1 line 38 through col. 4 line 19, and the abstract.] The same reasons for rejection, which apply to **New re-numbered**

claims 13, 24 also apply to **New re-numbered claims 14, 25** and need not be reiterated.

12. With respect to (**New re-numbered claim 15**) Lenz shows from figure 1, and the supplied voltages taught throughout the reference that "the energy source" whose actual input value is component 3 is a voltage source, and the first parameter is an input supply voltage". [See figure 1, col. 1 line 38 through col. 4 line 19, and the abstract.] The same reasons for rejection, which apply to **New re-numbered claim 13** also apply to **New re-numbered claim 15** and need not be reiterated.

13. With respect to (**New re-numbered claim 16**) Lenz teaches that "the amplifier is a pulse width modulator." [See col. 4 lines 9-10, in combination with the abstract and col. 1 lines 7-17.] The same reasons for rejection, which apply to **New re-numbered claim 13** also apply to **New re-numbered claim 16** and need not be reiterated.

14. With respect to (**New re-numbered claim 17**) Lenz teaches that "the compensation device" [See the components of figure 2] "is operable to generate a compensation signal that is dependent on the first parameter value and on one of a nominal or a maximal value of the first parameter value." [See the abstract, col. 1 line 38 through col. 4 line 19, figures 1 and 2] The same reasons for rejection, which apply to **New re-numbered claims 13, 14** also apply to **New re-numbered claim 17** and need not be reiterated.

15. With respect to (**New re-numbered claim 18**) Lenz shows from figures 1 and 2 that "the compensation device is connected on the output side to the control device or to the regulation system. [See the abstract, col. 1 line 38 through col. 4 line 19, figures 1 and 2] The same reasons for rejection, which apply to **New re-numbered claim 13** also apply to **New re-numbered claim 18** and need not be reiterated.

16. With respect to (**New re-numbered claim 19**) Lenz shows from figures 1 and 2 that "a regulator signal amplification device connected to the regulation system" [See the adjustable amplifiers of figure 2 such as component 20], wherein the compensation device" (i.e. the adder component 15 of figure 2) is connected on the output side thereof to the regulator signal amplification device. [See figure 2, figure 1, the abstract, and col. 1 line 38 through col. 4 line 19.] The same reasons for rejection, which apply to **New re-**

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numbered claims 13, 14 also apply to **New re-numbered claim 19** and need not be reiterated.

17. With respect to (**New re-numbered claim 20**) Lenz teaches from col. 1 line 38 through col. 4 line 19; and shows from the combination of figures 1 and 2 that "the regulator system accepts at least one compensation signal and the regulator signal (RS) is variable as a function of the first parameter value". The same reasons for rejection, which apply to **New re-numbered claim 13, 15** also apply to **New re-numbered claim 20** and need not be reiterated.

18. With respect to (**New re-numbered claim 21**) Lenz shows also that the energy source is a voltage source, and the first parameter is an output supply voltage" The same reasons for rejection, which apply to **New re-numbered claims 13, 14** also apply to **New re-numbered claim 21** and need not be reiterated.

19. With respect to (**New re-numbered claim 22**) and corresponding MR gradient amplifier method (**New re-numbered claim 26**), Lenz teaches and shows from figures 1 through 3, the abstract, and the teachings of col. 1 line 38 through col. 4 line 19; that the second parameter value is an amplifier output voltage or a load current. The same reasons for rejection, which apply to **New re-numbered claims 13, 14, 25** also apply to **New re-numbered claims 22, 26** and need not be reiterated.

Conclusion

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tiffany Fetzner whose telephone number is: (571) 272-2241. The examiner can normally be reached on Monday-Thursday from 7:00am to 4:30pm., and on alternate Friday's from 7:00am to 3:30pm.

21. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez, can be reached at (571) 272-2245. The **only official fax phone number** for the organization where this application or proceeding is assigned is **(571) 273-8300**.

22. Information regarding the status of an application may be obtained from the Patent Application information Retrieval (PAIR) system Status information for published applications may be obtained from either Private PMR or Public PMR. Status information for unpublished applications is available through Private PMR only. For more information about the PMR system, see <http://pair-direct.uspto.gov>. Should you

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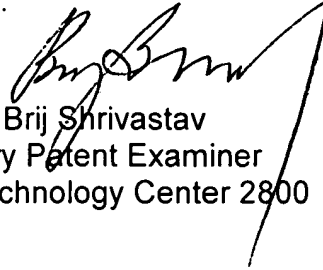
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have questions on access to the Private PMR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



TAF

March 4, 2007



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